



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,424	07/31/2000	Joon-wook Park	Q60211	4425

7590 05/21/2004

Sughrue Mion Zinn McPeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER

GEREZGIHER, YEMANE M

ART UNIT	PAPER NUMBER
----------	--------------

2144

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,424

Applicant(s)

PARK, JOON-WOOK

Examiner

Yemane M Gerezgiher

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) 10 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Amendment A, received on 02/25/2004 has been entered. Claims 1-24 are pending in this application.

Allowable Subject Matter

2. Claims 10 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8, 11-17 and 20-24 are rejected under 35 U.S.C. 102(a) as being anticipated by AAPA (Applicant's Admitted Prior Art).

The inventive entity (applicant) clearly discloses that there exists an *"algorithm for informing a control device or the connected other device of this fact has been presented by defining a new control command in an audio-video/control command transaction set (AV/C CTS). Specifically when any change occurs in a device for*

Art Unit: 2144

transmitting or receiving real time data, a new control command is defined in AV/C CTS to indicate this change. According to the AV/C CTS, information is available regarding whether each input plug desires to receive any input information, and whether each output plug desires to output information". See Background information disclosed on page 3, Lines 13-21 and Figures 1-3. The applicant further admitted that the predetermined digital interface been IEEE1394 (See Background information on page 1, Lines 15-24) and a connection register information with identification information indicating an input and output plug where a connection is established and where the output plug control register and input plug control register been registers for controlling a connection defined in an IEC 61883 format comprising bit fields representing multiple status changes (flag bits for on-line and off-line, a play load, data rate...). See Background information pages 1-3 and Figures 2 and 3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, 11-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama (U.S. Patent Number 5,088,029) in view of Applicant's Admitted Prior Art (AAPA).

As per claims 1, 11 and 20, Koyama disclosed a system for restructuring an input/output control system involving a plurality of devices connected via an interface where a control data stored in the first device and second device are used to manage data transfer operations between the devices connected therein (See Column Abstract, Figures 1-14, Column 3, Line 49 through Column 4, Line 29 and Column 12, Line 66, through Column 13, Line 2). Koyama disclosed a system/method informing or notifying the status change of the input/output control device that establishes a connection between the first and second devices where the control device been any one of the first device, second device or a third device among the pluralities of devices communicating to one another (See Abstract, Figures 1-14, Column 3, Line 49 through Column 4, Line 29 and Column 13, Line 2 through Column 16, Line 50)

As per claims 2 and 3, Koyama disclosed a control device transmitting a management command notification where the control device could be a third device establishing a connection between the first and second devices. (See Column 13, Lines 3-35 and Column 3, Lines 49-65).

As per claims 6, 7 15 and 16, Koyama taught detecting a flag bit change indicating off-line status of an input/output in the first device for transmitting data and similarly detecting a flag bit change indicating off-line status of an input/output in the second device for receiving data (See Column 13, Lines 3-67).

Koyama substantially disclosed the invention as claimed. However, Koyama failed to teach a digital interface (IEEE 1394 format), and where the predetermined data transmission been an IEC 61883 format.

Art Unit: 2144

An artisan working with Koyama's invention at the time the invention would have been motivated to look for teachings that may have allowed to implement a device controlling technique using a digital interface such as IEEE's 1394 and using an IEC 61883 format. As evidenced by the applicant's disclosure in the background of the invention, the inventive entity (applicant) clearly discloses that *there exists an "algorithm for informing a control device or the connected other device of this fact has been presented by defining a new control command in an audio-video/control command transaction set (AV/C CTS). Specifically when any change occurs in a device for transmitting or receiving real time data, a new control command is defined in AV/C CTS to indicate this change. According to the AV/C CTS, information is available regarding whether each input plug desires to receive any input information, and whether each output plug desires to output information"*. See the background information disclosed on page 3, Lines 13-21 and Figures 1-3. The applicant further admitted that the predetermined digital interface been IEEE1394 (See Background information on page 1, Lines 15-24) and a connection register information with identification information indicating an input and output plug where a connection is established and where the *output plug control register and input plug control register been registers for controlling a connection defined in an IEC 61883 format comprising bit fields representing multiple status changes (flag bits for on-line and off-line, a play load, data rate...)*. See Background information pages 1-3 and Figures 2 and 3. Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of the admitted prior art (AAPA) and have

Art Unit: 2144

modified the teachings of Koyama related to input/output control system managing data communication of devices connected through an interface by incorporating a digital interface in order to control devices connected to transmit multimedia objects in real-time and because of the fact the standard (IEEE 1394) interface is a platform independent solution in a true universal I/O connection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- a. Stahl, Thomas Anthony et al (U.S. Patent Number 6,665,020) Entitled:
Digital television apparatus for controlling a peripheral device via a digital bus
- b. Horlander, Karl Francis (U.S. Patent Number 6504847) Entitled:
Device interoperability
- c. NA, II-JU et al (U.S. Publication Number US 20010028780 A1) Entitled:
Multimedia system for transferring and receiving program number and methods therefor
- d. Iijima, Yuko (U.S. Patent Number 6,286,071) Entitled: *Communication control method, communication system and electronic device used therefor*
- e. Smyers, Scott D. (U.S. Patent Number 6,247,069) Entitled: *Automatically configuring storage array including a plurality of media storage devices for storing and providing data within a network of devices*

Art Unit: 2144

f. Shklarsky, Gadi et al (U.S. Patent Number 6,182,166) Entitled:

Method/apparatus for interfacing two remotely disposed devices coupled via transmission medium with first and second commands transmitted without first checking receiving device for readiness

g. Tanaka, Tomoko et al (U.S. Patent Number 6150,953) Entitled:

Communication control method, communication system and electronic apparatus using the same

h. Smyers, Scott D. et al (U.S. Patent Number 5,991,520) Entitled:

Application programming interface for managing and automating data transfer operations between applications over a bus structure

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Yemane Gerezgiher whose telephone number is 703-305-4874. The examiner can normally be reached on Monday- Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful. The examiner's supervisor, William Cuchlinski, can be reached at (703) 308-3873.

Yemane M. Gerezgiher
AU 2144


WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700